



PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

SHEILA C. HOLMAN  
*Director*

MM DD, 2016

Mr. Stephan Jean  
Plant Manager  
Ardagh Glass, Inc.  
620 Facet Road  
Henderson, NC 27537-0887

SUBJECT:     **Air Quality Permit No. 02834T26**  
              **Facility ID: 05/91/00069**  
              **Ardagh Glass, Inc.**  
              **Henderson**  
              **Vance County**  
              **Fee Class: Title V**  
              **PSD Status: Major**

Dear Mr. Jean:

In accordance with your completed Air Quality Permit Application for the significant modification of a Title V permit received August 01, 2016, we are forwarding herewith Air Quality Permit No. 02834T26 to Ardagh Glass, Inc., 620 Facet Road, Henderson, Vance County, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon

receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Vance County has not triggered increment tracking under PSD for any pollutants.

This Air Quality Permit shall be effective from MM DD, 2016 until April 30, 2018, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Joseph Voelker, P.E. at (919) 707-8730.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section  
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4 - permit and review  
Raleigh Regional Office  
Central Files  
Connie Horne (cover letter only)

## ATTACHMENT to cover letter to Air Quality Permit Number 02834T26

### Table of Changes

Existing Condition No.	New Condition No.	Changes
Cover Letter	Same	Revised dates, permit numbers, etc. using current shell standards
Insignificant Activities List	Same	<ul style="list-style-type: none"> <li>Added catalytic filter system dust bag loading operation (ID No. IS-DLO)</li> <li>Added 10,000 gallon ammonia storage tank (ID No. IS-AST)</li> <li>Revised MACT and GACT footnote</li> </ul>
Permit page 1	Same	Revised dates, permit numbers, etc. using current shell standards
Global	Same	Revised all references to paragraphs and conditions to current permit shell standards.
Section 1. Permitted Emission Source Table	Same	<ul style="list-style-type: none"> <li>Revised GF-1 descriptor <ul style="list-style-type: none"> <li>Changed furnace capacity from 320 tpd nominal to 350 tpd rated glass pull rate</li> <li>Corrected heat input from 55 to 60 MMbtu/hr</li> <li>Removed “when firing gas language” – upon review the melter has the same production capacity when firing natural gas or propane</li> </ul> </li> <li>Revised CD-1 descriptor to include PM control</li> <li>Revised GF-2 descriptor <ul style="list-style-type: none"> <li>Removed “when firing gas language” – upon review the melter has the same production capacity when firing natural gas or propane</li> </ul> </li> <li>Added “Subpart CC” descriptor to GF-1 and GF-2 ID Nos.</li> </ul>
2.1.A. emission Source Table	Same	<ul style="list-style-type: none"> <li>Revised GF-1 descriptor <ul style="list-style-type: none"> <li>Changed furnace capacity from 320 tpd nominal to 350 tpd rated glass pull rate</li> <li>Corrected heat input from nominal 55 to maximum 60 MMbtu/hr</li> <li>Removed “when firing gas language” – upon review the melter has the same production capacity when firing natural gas or propane</li> </ul> </li> <li>Revised CD-1 descriptor to include PM control</li> </ul>
2.1.A (applicable regulations table)	Same	<ul style="list-style-type: none"> <li>Removed reference to PSD Avoidance limitations. These limitations were removed from permit no. T21.</li> <li>Removed reference to permit application submittal requirement.</li> </ul>
2.1 A.1	Same	2D .0515 condition
c.i(A)	Same	<ul style="list-style-type: none"> <li>Revised condition to memorialize the allowable checker cleaning event interval</li> <li>Included mechanism to revise event interval without submitting a permit modification application consistent with current TV permitting procedures.</li> </ul>
d.	Same	Added reference to NCGS 143-215.108
2.1 A.3	Same	The 2D .0524 NSPS Subpart CC was substantially revised to reflect the new emission limitations and associated monitoring, recordkeeping and reporting.
2.1 A.4.	Same	2D .0521 (visible emissions) condition
a.	Same	Added standard shell language addressing allowable exceedances
b.i and ii	b and c	Renumbered paragraphs to facilitate the added standard shell language addressing allowable exceedances
c.	NA	Removed 2D .0521(g) COMs requirements
d	c	Simple renumbering of test condition
e	NA	Removed COMS monitoring and recordkeeping requirements
f	i.iv.	Included the requirement into the revised condition h.iv.

Existing Condition No.	New Condition No.	Changes
g	j	<ul style="list-style-type: none"> <li>Revised reporting requirements to reflect revised monitoring and recordkeeping requirements</li> </ul>
NA	e.	<ul style="list-style-type: none"> <li>Added the following statement for clarity. “No monitoring or recordkeeping requirements are required for the distributor and forehearths”</li> </ul>
NA	f	<ul style="list-style-type: none"> <li>Added VE requirements for the melter during normal operation</li> </ul>
NA	g	<ul style="list-style-type: none"> <li>Added VE requirements for the melter during control device bypass events</li> </ul>
NA	h	<ul style="list-style-type: none"> <li>Added VE requirements for the melter during checker cleaning events</li> </ul>
NA	i	<ul style="list-style-type: none"> <li>Added logbook requirements.</li> </ul>
2.1 A.5	Same	MACT SSSSSS Condition
NA	2.1 A.5.f.	<ul style="list-style-type: none"> <li>The following condition was added : If the Permittee, after issuance of Permit No. T26, conducts a performance test downstream of the control system (ID No. CD-1) in operation, the Permittee shall submit a permit application to revise the monitoring, recordkeeping and reporting requirements of Section 2.1 A.5.</li> </ul>
f through l	f through n	<ul style="list-style-type: none"> <li>Simple renumbering</li> </ul>
2.1 A.6	NA	<ul style="list-style-type: none"> <li>Removed application submittal requirement as this condition has been satisfied.</li> </ul>
2.1 A.7	2.1.A.6.	<ul style="list-style-type: none"> <li>Simple renumbering.</li> </ul>
2.1 B emission Source Table	Same	<ul style="list-style-type: none"> <li>Revised GF-2 descriptor <ul style="list-style-type: none"> <li>Removed “when firing gas language” – upon review the melter has the same production capacity when firing natural gas or propane</li> </ul> </li> </ul>
2.1 B.3	Same	2D .0521 condition
d	e.	<ul style="list-style-type: none"> <li>Highlighted no monitoring or recordkeeping requirements are required for the distributor and forehearths by including as a separate condition</li> </ul>
NA	f	<ul style="list-style-type: none"> <li>Included noncompliance statement as its own numbered paragraph.</li> </ul>
e	g	<ul style="list-style-type: none"> <li>Simple renumbering</li> </ul>
2.1 B.4	Same	NSPS Subpart CC condition
d	same	<ul style="list-style-type: none"> <li>Added reference to NCGS 143-215.108</li> </ul>
e.	same	<ul style="list-style-type: none"> <li>added mechanism to revise three-hour block average opacity limit without submitting a permit modification application consistent with current TV permitting procedures.</li> </ul>
f.	same	<ul style="list-style-type: none"> <li>added mechanism to revise 99% UCL value without submitting a permit modification application consistent with current TV permitting procedures.</li> </ul>
2.1 C.2	Same	2D .0521 condition
c.	same	<ul style="list-style-type: none"> <li>revised monitoring condition language to current shell standards. Changes include: <ul style="list-style-type: none"> <li>adding language to correct above normal emissions “ as soon as practicable”</li> <li>added the following statement “The observation must be made for each quarter of the calendar year period to ensure compliance with this requirement”</li> </ul> </li> </ul>
2.2 A.2.	Same	Global Consent Decree imposed SO2 emissions limitation condition
Table 2.2.A.2.a.1.	Same	<ul style="list-style-type: none"> <li>Revised Abnormally Low Production Rate Day Threshold for Furnace #1 (GF-1) from 112 to 123 tpd.</li> <li>Revised emission limit for GF-1 for clear glass from 640 to 700 lb/day and for colored glass from 768 to 840 lb/day.</li> </ul>
Table 2.2.A.2.a.3.	Same	<ul style="list-style-type: none"> <li>Revised emission limit for GF-1 for all glass from 2,400 to 2,625 lb/day</li> </ul>

Existing Condition No.	New Condition No.	Changes
Table 2.2.A.2.a.4	Same	<ul style="list-style-type: none"> <li>Revised emission limit for GF-1 for clear glass from <math>MH * 100 + NH * 27</math> to <math>MH * 109 + NH * 29</math></li> <li>Revised emission limit for GF-1 for colored glass from <math>MH * 100 + NH * 32</math> to <math>MH * 109 + NH * 35</math></li> </ul>
Table 2.2.A.2.a.5.	Same	<ul style="list-style-type: none"> <li>Revised emission limit for GF-1 from 1,600 to 1,750 lb/day</li> </ul>
Section 2.3	Same	Global Consent Decree condition
IV.7.m and n	Same	Removed these paragraphs. These two paragraphs were typographical errors that were inserted into Permit No. T25
NA	IV.8.m	Added GCD language that applies to sources combusting fuel oil at the request of the Permittee. The furnaces at this facility are currently not permitted to burn fuel oil.
IV.9.a.	Same	<ul style="list-style-type: none"> <li>Added clarifying text to indicate which paragraphs of the Consent Decree have been satisfied by Henderson Furnace #1 (GF-1).</li> </ul>
IV.10. Table 6	Same	<ul style="list-style-type: none"> <li>Revised Abnormally Low Production Rate Day Threshold for Furnace #1 from 112 to 123 tpd. Added italicized language to memorialize this change</li> </ul>
IV.13.a	same	<ul style="list-style-type: none"> <li>Revised paragraph to include GCD language that applies to sources utilizing control devices</li> </ul>
NA	IV.13.b	<ul style="list-style-type: none"> <li>Added GCD language that applies to sources utilizing control devices</li> </ul>
NA	IV.15.b	<ul style="list-style-type: none"> <li>Added the following language found in the GCD that is now relevant to GF-1 since it installed a SCR "If [AGI] installs an SCR on any of the above facilities, then it will not have to install COMS on that Furnace".</li> </ul>

## Attachment to Cover Letter to Air Quality Permit 02834T26

### Insignificant Activities under 15A NCAC 02Q .0503(8)

ID No.	Emission Source Description
IS-AL11	Annealing lehr - #11 Shop, 6.0 million Btu per hour heat input
IS-AL12	Annealing lehr - #12 Shop, 6.0 million Btu per hour heat input
IS-AL21	Annealing lehr - #21 Shop, 5.0 million Btu per hour heat input
IS-AL22	Annealing lehr - #22 Shop, 4.0 million Btu per hour heat input
IS-AL23	Annealing lehr - #23 Shop, 5.0 million Btu per hour heat input
IS-PS1	parts washing/aqueous cleaner
IS-SB1	sand blasting operations with dust collectors vented inside the building
IS-PT1 through IS-PT7	seven propane storage tanks (30,000 gallon capacity each) for furnaces/distributors/forehearths/lehrs backup fuel
IS-PT8	propane storage tank (15,000 gallon capacity) for heavy equipment fuel
IS-VAP	Propane-fired propane vaporizer (2.5 million Btu per hour heat input)
IS-DG3 [GACT ZZZZ]	Diesel-fuel-fired emergency generator (605 bhp output, 500 kW electrical output)
IS-DG4 [NSPS IIII] [GACT ZZZZ]	Diesel fuel-fired emergency generator (896 bhp output, 600 kW electrical output)
IS-SC1	Hot end coating
IS-MGO	one cartridge type bagfilter (25 square feet of filter area) installed on mold shop grinding operations and metal working operations
IS-PW	one natural gas fired parts washer (0.18 million Btu/hr) using a caustic base solution
IS-DT1 and IS-DT2	two diesel storage tanks (500 gallons capacity each)
IS-DT3	One diesel storage tank (1,000 gallons capacity)
IS-LT1	one lubricating oil storage tank (10,000 gallons capacity)
IS-GT1	one gasoline storage tank (500 gallons capacity)
IS-UT1 and IS-UT2	two used oil storage tanks (1,000 gallons capacity each)
IS-CT1 through IS-CT4	four cooling towers (279 gpm, 350 gpm, 390 gpm, and 850 gpm)
IS-VJ	VideoJet date coders
IS-CG	Carton glues
IS-LJ	LaserJet date coders
IS-CE	Cold end sprays
IS-PW-SK	Parts washing unit using non-hazardous solvent

<b>ID No.</b>	<b>Emission Source Description</b>
IS-OV	Mold preheat ovens
IS-SH	Space heaters
IS-IBT	Internal bottle treatment coating operations
IS-VAC1 and IS-VAC2	Central vacuum units in batch house and furnace area of hot end
IS-SBS-1 and IS-SBS-2	Shrink bag systems (0.75 million Btu per hour each)
IS-MC	Mold coating operation
IS-CUL	Cullet unloading and hopper loading operations
IS-DLO	Catalytic filter system dust bag loading operation
IS-AST	Ammonia storage tank (10,000 gallons capacity)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit”.
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled “Specific Permit Conditions Regulatory Guide.” The link to this site is as follows:

<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.



State of North Carolina  
Department of Environmental Quality  
Division of Air Quality

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02834T26	02834T25	MM DD, 2016	April 30, 2018

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

**Permittee:** **Ardagh Glass, Inc.**  
**Facility ID:** **05/91/00069**  
**Facility Site Location:** **620 Facet Road**  
**City, County, State, Zip:** **Henderson, Vance County, North Carolina 27536**  
**Mailing Address:** **1509 South Macedonia Avenue, P. O. Box 4200**  
**City, State, Zip:** **Muncie, Indiana 47307-4200**  
**Application Number:** **9100069.16A**  
**Complete Application Date:** **August 01, 2016**  
**Primary SIC Code:** **3221**  
**Division of Air Quality,** **Raleigh Regional Office**  
**Regional Office Address:** **1628 Mail Service Center**  
**Raleigh, North Carolina 27699-1628**

Permit issued this the DD<sup>th</sup> day of MM, 2016

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William D. Willets, P.E., Chief, Permitting Section  
By Authority of the Environmental Management Commission



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## SECTION 1- PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
GF-1 NSPS Subpart CC GACT SSSSSS	Glass melting furnace including the following equipment:  (i) one natural gas/propane-fired melter with electric boost (350 tons per day rated glass pull rate, 60 million Btu per hour maximum heat input capacity, and 3600 kVA electric [12.3 million Btu per hour] maximum heat input capacity)  (ii) one natural gas/propane-fired distributor (12.45 million Btu per hour maximum heat input capacity).  (iii) two natural gas/propane-fired forehearths (5.0 million Btu per hour combined total maximum heat input capacity).	CD-1	Filtration system consisting of ceramic filter media with embedded catalyst for PM and NOx control
GF-2 NSPS Subpart CC	Glass melting furnace including the following equipment:  (i) one natural gas/propane-fired melter equipped with oxygen enriched air staging and electric boost (385/345 tons per day peak/annual average rated glass pull rate, 85/64 million Btu per hour maximum/nominal heat input capacity, and 3400 kVA electric [11.6 million Btu per hour] maximum heat input capacity)  (ii) one natural gas/propane-fired distributor (3.4 million Btu per hour maximum heat input capacity).  (iii) three natural gas/propane-fired forehearths (5.6 million Btu per hour combined total maximum heat input capacity).	n/a	n/a
ES-1A	raw material unloading operation	CD92-11	one bagfilter (480 square feet of filter area) installed on the rail car unloading operation
ES-1B	raw material storage and transfer operations	CD92-14 to CD92-18	five bagfilters (65 square feet of filter area each) installed on each of five raw material storage bin vents of Silo No. 3
ES-2	batching operations	CD92-12 CD92-13	two bagfilters (one with 640 and one with 800 square feet of filter area)
ES-3	furnace feed operations	CD92-1 CD92-3	two bagfilters (800 square feet of filter area each)
MS-1	mold swabbing operation	n/a	n/a

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

### 2.1- Emission Sources and Control Devices Specific Limitations and Conditions

The emission sources and associated air pollution control devices and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

#### A. The following:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
GF-1	<p>Glass melting furnace including the following equipment:</p> <p>(i) one natural gas/propane-fired melter with electric boost (350 tons per day rated glass pull rate, 60 million Btu per hour maximum heat input capacity, and 3600 kVA electric [12.3 million Btu per hour] maximum heat input capacity).</p> <p>(ii) one natural gas/propane-fired distributor (12.45 million Btu per hour maximum heat input capacity).</p> <p>(iii) two natural gas/propane-fired forehearths (5.0 million Btu per hour combined total maximum heat input capacity).</p>	CD-1	Filtration system consisting of ceramic filter media with embedded catalyst for PM and NOx control

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	<p><b>Melter only</b>  <math>E = 4.10P^{0.67}</math>            where            E = allowable emissions rate in pounds per hour            P = process weight rate in tons per hour</p>	15A NCAC 02D .0515
SO <sub>2</sub>	2.3 pounds per million Btu	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521(d)
Visible emissions	<p><b>Melter only</b>            during checker cleaning operations only            40 percent opacity</p>	15A NCAC 02D .0521(c)
PM (filterable only)	<p><b>Melter only</b>            as defined in Section 2.1 A.3.</p>	15A NCAC 02D .0524 (40 CFR 60, Subpart CC)
Toxic air pollutants	<p><b>State Enforceable Only</b>            Refer to Section 2.2</p>	15A NCAC 02D .1100
NOx	<p><b>Melter only</b>  <b>State Enforceable Only</b>            See Section 2.3</p>	NCGS 143-215.108(c) [Global Consent Decree]
Ammonia	<p><b>State Enforceable Only</b>            Permit required if emission rate exceeds TPER</p>	15A NCAC 02Q .0711
SO <sub>2</sub>	<p><b>Melter only</b>            See Section 2.2.A.2 and 2.3</p>	NCGS 143-215.108(c) [Global Consent Decree]

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of PM from the glass melting furnace (ID No. GF-1) (melter only) shall not exceed an allowable emission rate as calculated by the following equation:]

For process rates up to 30 tons per hour:  $E = 4.10 \times P^{0.67}$

Where E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.
- c. Under the provisions of NCGS 143-215.108:
- The Permittee shall establish an “allowable checker cleaning event interval” and demonstrate compliance with the emission limit in Section 2.1 A.1.a above by testing the melter stack of the furnace (ID No. GF-1) in accordance with a testing protocol approved by the DAQ and in accordance with General Condition JJ. The Permittee has established the allowable checker cleaning event interval as 263 days. If the Permittee reestablishes the interval as allowed pursuant to Section 2.1 A.1.c.ii and iii below, the Permittee shall, upon approval by the DAQ, attach the approval memo containing the revised allowable checker cleaning event interval to this permit.
  - The Permittee shall retest the furnace (ID No. GF-1) melter stack to demonstrate compliance with the emission limit in Section 2.1 A.1.a above during any subsequent checker cleaning event if either:  
(A) the source test during the previous checker cleaning event is in noncompliance with Section 2.1 A.1.a above; or  
(B) if the time elapsed, in days, since the previous checker cleaning event is greater than the allowable checker cleaning event interval defined in Section 2.1 A.1.c.iii. below.
  - An allowable checker cleaning event interval is defined as the time elapsed, in days, between two consecutive checker cleaning events in which the last of the checker cleaning events has demonstrated compliance with Section 2.1 A.1.a above by source testing.  
The calculation of the interval excludes the number of days where the furnace (ID No. GF-1) is shut down (e.g., during a cold repair or due to business considerations) or glass container production is suspended (e.g., during a “hot hold”).
  - If the results of this test(s) are above the limit given in Section 2.1 A.1.a or are not conducted according to Section 2.1 A.1.c above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.
- d. Under the provisions of NCGS 143-215.108, the Permittee shall conduct annual stack tests in accordance with General Condition JJ. If the results of a test are above the limit given in Section 2.1 A.1.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall keep records of:
- the date and duration of checker cleaning events; and
  - the intervals between checker cleaning events.
- If these records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.
- f. The Permittee shall maintain production records (in written or electronic form) of tons of glass pulled per calendar day basis. If these records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Reporting** [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of the monitoring and recordkeeping activities in Sections 2.1 A.1.e and f above, postmarked on or before January 30

of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

- i. The report shall include:
  - (A) the date and approval status of the most recent source test conducted pursuant to Section 2.1 A.1.d above;
  - (B) the production rate at which the source test was conducted; and
  - (C) the maximum production rate achieved since the most recent source test conducted pursuant to Section 2.1 A.1.d above.
- ii. The report shall also include:
  - (A) date and duration of most recent checker cleaning event; and
  - (B) time (in days) elapsed since most recent checker cleaning event.

**2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of SO<sub>2</sub> from the glass-melting furnace GF-1 (melter, distributor, and forehearths) shall not exceed 2.3 pounds per million Btu heat input. SO<sub>2</sub> formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for SO<sub>2</sub> emissions from the firing of natural gas/propane in this furnace.

**3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS  
(40 CFR PART 60 SUBPART CC- STANDARDS OF PERFORMANCE FOR GLASS MANUFACTURING PLANTS)**

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards" as promulgated in 40 CFR Part 60 Subpart CC- "Standards of Performance for Glass Manufacturing Plants," including Subpart A "General Provisions."

**Emission Limitations** [40 CFR 60.292(a)]

- b. The maximum filterable PM emissions from the glass melting furnace (melter only, ID No. GF-1) shall not exceed **0.2 pound per ton of glass produced**. During routine maintenance of add-on pollution controls, the Permittee shall be exempt from this emission limitation if:
  - i. Routine maintenance in each calendar year does not exceed 6 days;
  - ii. Routine maintenance is conducted in a manner consistent with good air pollution control practices for minimizing emissions; and
  - iii. A report is submitted to the Administrator (RRO Regional Supervisor) 10 days before the start of the routine maintenance (if 10 days cannot be provided, the report must be submitted as soon as practicable) and the report contains an explanation of the schedule of the maintenance.

**Testing** [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.b, the Permittee shall be deemed in noncompliance with 15A NCAC 02D. 0524.
- d. The Permittee shall conduct a performance test in accordance with General Condition JJ and 40 CFR 60.296 within 60 days after achieving the maximum production rate at which the glass melting furnace (melter only, ID No. GF-1) will be operated, but not later than 180 days after the initial startup of the glass melting furnace (melter

only, ID No. GF-1) after the installation of the control system (ID No. CD-1). If the results of this test are above the limit given in Section 2.1 A.3.b, the Permittee shall be deemed in noncompliance with 15A NCAC 02D. 0524.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f), 40 CFR 60.7]

- e. Particulate matter emissions from the glass melting furnace (melter only, ID No. GF-1) shall be controlled by the control system (ID No. CD-1). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the control device's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the control system is not inspected and maintained.

- f. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the control system; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

- g. Pursuant to 40 CFR 60.7(b), the Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- h. Pursuant to 40 CFR 60.7(f), the Permittee shall maintain records of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; recorded in a permanent form suitable for inspection. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

**Reporting** [15A NCAC 02Q .0508(f)]

- i. The Permittee shall submit the results of any maintenance performed on the control system within 30 days of a written request by the DAQ.
- j. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Sections 2.1 A.3.e through h, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the glass-melting furnace (distributor and forehearth only, ID No. GF-1) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- b. Visible emissions from the melter stack of the glass-melting furnace (ID No. GF-1) shall not be more than 20 percent opacity when averaged over a six-minute period, except during checker cleaning events. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- c. Visible emissions from the melter stack of the glass-melting furnace (ID No. GF-1) shall not be more than 40 percent opacity when averaged over a six-minute period during checker cleaning events. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

**Testing** [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.a, b or c, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- e. No monitoring or recordkeeping requirements are required for the distributor and forehearths.
- f.
  - i. To ensure compliance, the Permittee shall observe the emission point of the melter once a week during normal operation for any visible emissions above normal. Observations made pursuant to Section 2.1 A.4.g or h below satisfy this requirement for that week. The Permittee shall establish “normal” for the source in the first 30 days following the effective date of Permit No. T26. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
    - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
    - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.4.b above.
  - ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
    - (A) the above-normal emissions are not corrected per f.i.(A) above;
    - (B) the demonstration in f.i.(B) above cannot be made;
    - (C) the daily observations are not conducted per f.i above;
    - (D) “normal” is not established for this source in the first 30 days following the effective date of this permit per f.i above.
- g.
  - i. For each control device bypass event as allowed pursuant to Section 2.1 A.3.b, the Permittee shall observe the emission point of the melter for any visible emissions above normal during control device bypass events. The Permittee shall establish “normal” during the next control device bypass event following the issuance of Permit No. T26. The observation must be made for each control device bypass event to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal for control device bypass events, the Permittee shall either:
    - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
    - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.4.b above.
  - ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
    - (A) the above-normal emissions are not corrected per g.i.(A) above;
    - (B) the demonstration in g.i.(B) above cannot be made;
    - (C) the daily observations are not conducted per g.i above;
    - (D) “normal” is not established for this source during the next control device bypass event following the issuance of permit no. T26 per g.i above.
- h.
  - i. For each checker cleaning event, the Permittee shall observe the emission point of the melter for any visible emissions above normal during checker cleaning events. Checker cleaning events shall not be conducted during control device bypass events. The Permittee shall establish “normal” during the next checker cleaning event following the issuance of permit no. T26. The observation must be made for each checker cleaning event to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal for checker cleaning events, the Permittee shall either:
    - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
    - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.4.c above.
  - ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
    - (A) the above-normal emissions are not corrected per h.i.(A) above;
    - (B) the demonstration in h.i.(B) above cannot be made;
    - (C) the daily observations are not conducted per h.i above;
    - (D) “normal” is not established for this source during the next checker cleaning event following the issuance of permit no. T26 per h.i above.

- i. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions;
  - iii. The results of any corrective actions performed;
  - iv. the date and duration of checker cleaning events; and
  - v. the date and duration of control device bypass events.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- j. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.4.f through i, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

**Applicability** [40 CFR 63.11448]

- a. For this furnace, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, SUBPART SSSSSS—"National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources."

**Definitions and Nomenclature** [40 CFR 63.11459]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.11459 shall apply.

**40 CFR Part 63 Subpart A General Provisions** [40 CFR 63.11458]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions as specified in Table 2 to 40 CFR Part 63, Subpart SSSSSS.

**Emission Limitations** [15A NCAC 02Q .0508(f)]

- d. For this furnace, that produces glass at an annual rate of at least 45 Mg/yr (50 tpy) and is charged with glass manufacturing metal HAP as raw materials, the Permittee shall meet the following emission limit: The 3-hour block average production-based metal HAP mass emission rate must not exceed 0.01 g/kg (0.02 lb/ton) of glass produced.  
[40 CFR 63.11451, Table 1]

**Testing** [15A NCAC 02Q .0508(f)]

- e. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the applicable emission limits given in Section 2.1 A.5.d above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.
- f. If the Permittee, after issuance of Permit No. T26, conducts a performance test downstream of the control system (ID No. CD-1) in operation, the Permittee shall submit a permit application to revise the monitoring, recordkeeping and reporting requirements of Section 2.1 A.5.

**Monitoring and Continuous Compliance Requirements** [15A NCAC 02Q .0508(f)]

- g. The Permittee shall be in compliance with the applicable emission limits in this subpart at all times, except during periods of startup, shutdown, and malfunction. [40 CFR 63.11455(a)]
- h. The Permittee shall always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i). [40 CFR 63.11455(b)]
- i. For the furnace subject to the emission limit specified in Section 2.1 A.5.d above, the Permittee shall demonstrate continuous compliance by satisfying the applicable recordkeeping requirements specified below. [40 CFR 63.11455(e)]



**Recordkeeping Requirements** [15A NCAC 02Q .0508(f)]

- j. The Permittee shall keep the following records:
  - i. A copy of any Initial Notification and Notification of Compliance Status submitted and all documentation supporting those notifications, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
  - ii. The records specified in 40 CFR 63.10(b)(2) and (c)(1) through (13).
  - iii. For each affected source, records of production rate on a process throughput basis (either feed rate to the process unit or discharge rate from the process unit). The production data must include the amount (weight or weight percent) of each ingredient in the batch formulation, including all glass manufacturing metal HAP compounds.
- [40 CFR 63.11457(a)]
- k. The records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.11457(b)]
- l. As specified in 40 CFR 63.10(b)(1), the Permittee shall keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee shall keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The records may be kept offsite for the remaining three years. [40 CFR 63.11457(d)]
- m. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.1 A.5.g through l are not met.

**Reporting Requirements** [15A NCAC 02Q .0508(f)]

- n. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities given in Sections 2.1 A.5.j through l, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance shall be clearly identified.

**State-Enforceable Only**

**6. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT**

- a. Prior to exceeding the applicable emission rate listed below, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 02D .1100 "Control of Toxic Air Pollutants".

Pollutant (CAS Number)	Emission Rate (lb/hr)	
	one or more emission release points are obstructed or non-vertically oriented whose actual rate of emissions from all sources are greater than the following permitting emissions rate	all emission release points are unobstructed and vertically oriented whose actual rate of emissions from all sources are greater than the following permitting emissions rate
Ammonia	0.68	2.84

**B. The following:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
GF-2	<p>Glass melting furnace including the following equipment:</p> <p>(i) one natural gas/propane-fired melter equipped with oxygen enriched air staging and electric boost (385/345 tons per day peak/annual average rated glass pull rate, 85/64 million Btu per hour maximum/nominal heat input capacity, and 3400 kVA electric [11.6 million Btu per hour] maximum heat input capacity).</p> <p>(ii) one natural gas/propane-fired distributor (3.4 million Btu per hour maximum heat input capacity).</p> <p>(iii) three natural gas/propane-fired forehearths (5.6 million Btu per hour combined total maximum heat input capacity).</p>	n/a	n/a

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	<p><b><u>Melter only</u></b>  <math>E = 4.10P^{0.67}</math>            where E = allowable emissions rate in pounds per hour            P = process weight rate in tons per hour</p>	15A NCAC 02D .0515
SO <sub>2</sub>	2.3 pounds per million Btu	15A NCAC 02D .0516
Visible emissions	40 percent opacity	15A NCAC 02D .0521
PM (filterable only)	<p><b><u>Melter only</u></b>            as defined in Section 2.1 B.4.</p>	15A NCAC 02D .0524 (40 CFR 60, Subpart CC)
PM10, PM2.5, SO <sub>2</sub> , sulfuric acid mist, fluorides, lead	Testing; recordkeeping and reporting of actual emissions	15A NCAC 02D .0530(u)
Toxic air pollutants	<p><b><u>State-Enforceable Only</u></b>            Refer to Section 2.2</p>	15A NCAC 02D .1100
NO <sub>x</sub>	<p><b><u>Melter only</u></b>  <b><u>State-Enforceable Only</u></b>            See Section 2.3</p>	NCGS 143-215.108(c) [Global Consent Decree]
SO <sub>2</sub>	<p><b><u>Melter only</u></b>            See Section 2.2.A.2 and 2.3</p>	NCGS 143-215.108(c) [Global Consent Decree]

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of PM from the glass melting furnace (ID No.GF-2) (melter only) shall not exceed an allowable emission rate as calculated by the following equation:

For process rates up to 30 tons per hour:  $E = 4.10 \times P^{0.67}$

Where E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall conduct annual stack tests in accordance with General Condition JJ. If the results of such test are above the limit given in Section 2.1 B.1.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall maintain production records (in written or electronic form) of tons of glass pulled per calendar day basis. If these records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of the monitoring and recordkeeping activities given in section 2.1 B.1.d above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall include:
- the date and approval status of the most recent source test conducted pursuant to Section 2.1 B.1.c above;
  - the production rate at which the source test was conducted; and
  - the maximum production rate achieved since the most recent source test conducted pursuant to Section 2.1 B.1.c above.

**2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of SO<sub>2</sub> from the glass-melting furnace GF-2 shall not exceed 2.3 pounds per million Btu heat input. SO<sub>2</sub> formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for SO<sub>2</sub> emissions from the firing of natural gas/propane in this furnace.

**3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the glass-melting furnace (ID No. GF-2) shall not be more than **40 percent opacity** when averaged over a six-minute period.
- b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS), compliance with the 40 percent opacity limit shall be determined as follows: [15A NCAC 02D .0521(g)]
  - i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
  - ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.

Excess emissions during startup and shutdown shall be excluded from the determinations in paragraphs i and ii above, if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(g). Excess emissions during malfunctions shall be excluded from the determinations in paragraphs i and ii above, if the excess emissions are exempted according to the procedures set out in 15A NCAC 02D .0535(c).

All periods of excess emissions shall be included in the determinations in paragraphs i and ii above until such time that the excess emissions are exempted according to the procedures in 15A NCAC 02D .0535.

**Testing** [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall use a continuous opacity monitor system (COMS) to monitor and record opacity from the melter stack. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and 15A NCAC 02D .0613.
- e. No monitoring or recordkeeping requirements are required for the distributor and forehearths.
- f. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the requirements in Section 2.1 B.3.d are not met or if the monitored values exceed the limitations given in Sections 2.1 B.3.a and b above.

**Reporting** [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 B.4.1 (Subpart CC reporting requirements). All instances of excess emissions with respect to 15A NCAC 02D .0521 must be clearly identified.

**4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS**

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart CC, including Subpart A "General Provisions."

**Emission Limitations** [15A NCAC 02D .0524, 40 CFR 60.293(b)]

- b. The maximum filterable PM emissions from the glass melting furnace (melter only, ID No. GF-2) shall not exceed **1.0 pound per ton of glass produced.**

**Testing** [15A NCAC 02Q .0508(f), 40 CFR 60.293(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.4.b, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
- d. Under the provisions of NCGS 143-215.108, the Permittee shall conduct annual stack tests in accordance with General Condition JJ. If the results of such test are above the limit given in Section 2.1 B.4.b, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

**Monitoring** [15A NCAC 02Q .0508(f), 40 CFR 60.13 and 60.293]

- e. The Permittee shall use a continuous opacity monitor system (COMS) to monitor and record opacity. The COMS shall be calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60 Appendix B "Performance Specifications", 40 CFR 60.13 and 15A NCAC 02D .0613.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D. 0524 if any three-hour block average opacity value, excluding periods of checker cleaning (not to exceed 144 hours per year), startup, shut down, malfunction from the glass melting furnace (melter only, ID No. GF-2) exceeds **18.1 percent**.

The three-hour block average opacity limit above was established by using the three 1-hour average opacity values from the compliance stack test and determining the 99% Upper Confidence Limit (UCL) of the three 1-hour averages. The resultant three-hour opacity UCL value was then pro-rated to the NSPS particulate limit (1.0 pounds of PM per ton of glass pulled), by using the average PM emission value determined during the compliance stack test.

A three-hour block average opacity value shall be calculated as the arithmetic average of any and all valid six-minute averages within the three-hour period. A three-hour period means a 180- minute period commencing at 12am, 3am, 6am, 9am, 12pm, 3pm, 6pm, and 9pm each day. Valid six-minute averages are calculated per 40 CFR 60.13.

The Permittee may at anytime reestablish the three-hour block average opacity limit. The Permittee shall, upon approval by the DAQ, attach the source test approval memo containing the revised three-hour block average opacity value to this permit and comply with the three-hour block average opacity value contained therein.

- f. For the purposes of 40 CFR 60.293(c)(5) and 60.7, Excess Emissions are defined as all of the 6-minute periods during which the average opacity of the emissions from the glass melting furnace (melter only, ID No. GF-2) exceed 14.1 percent, the 99% UCL value determined from a compliance stack test as provided in 40 CFR 60.293(e).

The Permittee may at anytime, consistent with the provisions of 40 CFR 60.293(e), reestablish the 99% UCL value. The Permittee shall, upon approval by the DAQ, attach the source test approval memo containing the revised 99 % UCL value to this permit and comply with the 99% UCL value contained therein.

- g. The Permittee shall calculate the Percent Excess Emissions and the Percent COMS Downtime using the equations listed below:

**Percent Excess Emissions (%EE):**

$$\%EE = \frac{\text{Duration of Excess Emissions} - \text{Duration of Excess Emissions During StartUp/ ShutDown/ Malfunction/ Checker Cleaning}}{\text{Furnace Operating Time} - \text{Duration of StartUp/ Shutdown/ Malfunction/ Checker Cleaning}} * 100\%$$

**Percent COMs Downtime (%CD):**

$$\%CD = \frac{\text{COMs Downtime}}{\text{Furnace Operating Time}} * 100\%$$

Where:

<i>Excess Emissions</i>	=	<i>Defined in Section 2.1 B.4.f</i>
<i>Duration of Excess Emissions</i>	=	<i>Summation of the excess emissions in hours during the given calendar three-month period</i>
<i>Duration of Excess Emissions During StartUp/ ShutDown/ Malfunction/Checker Cleaning</i>	=	<i>Summation of the excess emissions in hours occurring during all periods of startup/shutdown/malfunction/checker cleaning during the given calendar three-month period</i>
<i>Furnace Operating Time*</i>	=	<i>Summation of the operation time of the source in hours during the given calendar three-month period</i>
<i>Duration of StartUp/ ShutDown/Malfunction/ Checker Cleaning</i>	=	<i>Summation of the operation time of the source in hours occurring during all periods of startup/shutdown/malfunction/checker cleaning during the given calendar three-month period</i>
<i>COMs downtime**</i>	=	<i>Summation of time in hours during which the COMs is not operational and concurrent with the Furnace Operating Time during the given calendar three-month period</i>

\* If the furnace operates less than 500 hours during any calendar three-month period, the Permittee may perform the above calculations using all of the operating data for the current calendar six-month period and the most recent data for the proceeding calendar three-month period until 500 hours of data are obtained. [N.C.G.S. 143-215.110]

\*\* Quality assurance (QA) activities will be included in this calculation unless exempt by regulation or defined in an agency approved Quality Assurance (QA) Manual. The amount of exempt QA time will be reported in the report per Section 2.1 B.4.l.

**Acceptable Operation and Maintenance** [15A NCAC 02D .0524, 40 CFR 60.293(c)]

- h. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the Percent Excess Emissions from the glass melting furnace (melter only, ID No. GF-2) exceeds **3 percent** or if the Percent COMS Downtime exceeds **3 percent** in any calendar three-month period (January through March, April through June, July through September, October through December).

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- i. Pursuant to 40 CFR 60.7(b), the Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- j. Pursuant to 40 CFR 60.7(f), the Permittee shall maintain records of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; recorded in a permanent form suitable for inspection. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- k. The Permittee shall record and maintain records of:
- Furnace operating time;
  - Date, time and duration of the performance of checker cleaning operations; and
  - Three-hour block average opacity values.
- l. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the recordkeeping requirements in Sections 2.1 B.4.i through k are not met.

**Reporting** [15A NCAC 02Q .0508(f)]

- m. On a quarterly basis, the Permittee shall:
- Submit a report containing Percent Excess Emissions, Percent COMs Downtime, and Furnace Operating Time, as defined in Section 2.1 B.4.g above and the date, time and duration of the performance of checker cleaning operations;
  - Pursuant to 40 CFR 60.293(c)(5) and 40 CFR 60.7(c), submit an excess emissions and monitoring system performance summary report. The report shall contain the information required per 40 CFR 60.7(c) and (d); and
  - Submit a report of the three-hour block average opacity values, as defined in Section 2.1 B.4.e, that exceed **18.1** percent.

The format for the report will be provided by the DAQ. The quarterly reports, acceptable to the Regional Air Quality Supervisor, shall be postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September.

**5. 15A NCAC 02D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS**

- a. The Permittee has used projected actual emissions to avoid applicability of Prevention of Significant Deterioration requirements for a project consisting of modifications to the forehearths, distributor and melter associated with Furnace GF-2 (ID No. GF-2). This project also involves the modification of other ancillary equipment and is fully described in application no. **9100069.11B**.

In order to verify the assumptions used in the projected actual emissions calculations, the Permittee shall comply with the testing, record keeping and reporting requirements in Sections 2.1 B.5.b through d below.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ.

**Recordkeeping** [15A NCAC 02D .0530(u)]

- c. The Permittee shall maintain records of actual emissions for PM (filterable and condensable), PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, sulfuric acid mist, fluorides and lead in tons per year on a calendar year basis for five years following the resumption of regular operations upon commencement of the modifications described in application no. **9100069.11B**. SO<sub>2</sub> emission estimates shall be based on the continuous emissions monitor installed pursuant to the Global Consent Decree (Civil Action No. 2:10-cv-00121-TSZ). Other emission estimates shall be based on most recent source test. The Permittee shall make the information, documented and maintained in this paragraph available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

**Reporting** [15A NCAC 02D .0530(u)]

- d. The Permittee shall submit a report for PM (filterable and condensable), PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, sulfuric acid mist, fluorides and lead emissions to the Director within 60 days after the end of each calendar year during which the records in Section 2.1 B.5.c must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c).

**C. The following:**

**Table 2.1.C**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1A	raw material unloading operation	CD92-11	one bagfilter (480 square feet of filter area) installed on the rail car unloading operation
ES-1B	raw material storage and transfer operations	CD92-14 to CD92-18	five bagfilters (65 square feet of filter area each) installed on each on five raw material storage bin vents of Silo No. 3
ES-2	batching operations	CD92-12 CD92-13	two bagfilters (one with 640 and one with 800 square feet of filter area)
ES-3	furnace feed operations	CD92-1 CD92-3	two bagfilters (800 square feet of filter area each)

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	for processes up to 30 tons per hour, $E = 4.10 P^{0.67}$  for processes greater than 30 tons per hour, $E = 55.0 P^{0.11} - 40$  where E =allowable emissions rate in pounds per hour P =process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of PM from these sources shall not exceed an allowable emission rate as calculated by the following equations:

For process rates up to 30 tons per hour:  $E = 4.10 \times P^{0.67}$

For process rates greater than 30 tons per hour:  $E = 55 \times P^{0.11} - 40$

Where E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. PM emissions from these sources shall be controlled as described in Table 2.1 C. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and bagfilters for leaks; and
  - an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.





**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of inspections and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the bagfilters; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 C.1.c and d, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c.
  - i. To ensure compliance, once every three months, the Permittee shall observe the emission points of the bagfilters for any visible emissions above normal. The observation must be made for each quarter of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
    - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
    - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a above.
  - ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
    - (A) the above-normal emissions are not corrected per c.i.(A) above;
    - (B) the demonstration in c.i.(B) above cannot be made; or
    - (C) the daily observations are not conducted per c.i above.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping requirements in Sections 2.1 C.2.c and d above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**D. The following:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
MS-1	mold swabbing operation	n/a	n/a

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 02D .0521

**1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the mold swabbing operation (ID No. MS-1) shall not be more than **20 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the mold swabbing operation (ID No. MS-1).

## 2.2- Multiple Emission Source(s) Specific Limitations and Conditions

### A. Two glass melting furnaces (ID Nos. GF-1 and GF-2)

#### State Enforceable Only

#### 1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Sources	Toxic Air Pollutants	Emission Limits
Glass Melting Furnace (ID No. GF-1) (melter, distributor, and forehearths)	arsenic cadmium sulfuric acid sulfuric acid fluoride fluoride	113.2 pounds per year 2,706.5 pounds per year 80.0 pounds per hour 989.3 pounds per 24 hours 200.0 pounds per hour 1,319.1 pounds per 24 hours
Glass Melting Furnace (ID No. GF-2) (melter, distributor, and forehearths)	arsenic cadmium sulfuric acid sulfuric acid fluoride fluoride	113.2 pounds per year 2,706.5 pounds per year 80.0 pounds per hour 989.3 pounds per 24 hours 200.0 pounds per hour 1,319.1 pounds per 24 hours

#### Testing

- b. No testing is required.

#### Monitoring/Recordkeeping/Reporting

- c. No monitoring/recordkeeping/reporting is required.

#### State and Federal-Enforceable

#### 2. NCGS 143-215.108

- a. Pursuant to NCGS 143-215.108(c), and as required by the Consent Decree in the matter of *United States v. Saint-Gobain Containers, Inc.* (Civil Action No. 2:10-cv-00121-TSZ) relating to alleged violations of the Clean Air Act, the SO<sub>2</sub> emissions from the glass melting furnaces (ID Nos. GF-1 and GF-2, melters only) shall not exceed the limits in Table 2.2.A.2.a. below:

**Table 2.2.A.2.a.**

Furnace	Emission Limits (lbs SO <sub>2</sub> /ton of glass produced, 30-day rolling average)	
	Flint (clear) glass	Colored (all other) Glass
	Combusting natural gas	Combusting natural gas
Furnace # 1 (ID No. GF-1)	2.0	2.4
Furnace # 2 (ID No. GF-2)	2.0	2.4

The limits in Table 2.2.A.2.a shall apply during all Operating Days except during Furnace Startup, Maintenance of the Furnace, Malfunction of the Furnace, Color Transition, and Abnormally Low Production Rate Days. For these exception periods, the Permittee shall meet the following SO<sub>2</sub> emission limits:

1. SO<sub>2</sub> Limit during Abnormally Low Production Rate Days – For any Abnormally Low Production Rate Day, the Permittee may elect to exclude the emissions generated during that Day from the Emission Rate 30-day Rolling Average. During these Days, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limits:

**Table 2.2.A.2.a.1**

Furnace	Abnormally Low Production Rate Threshold, (tons of glass produced per day)	Emission Limits During Abnormally Low Production Rate Days (lbs SO <sub>2</sub> /day of glass produced, 24-hour block average)	
		Flint (clear) Glass	Colored (all other) Glass
		Combusting natural gas	Combusting natural gas
Furnace # 1 (ID No. GF-1)	123	700	840
Furnace # 2 (ID No. GF-2)	135	770	924

2. SO<sub>2</sub> limit during Furnace Startup – the Permittee shall comply with the following operational limit to limit SO<sub>2</sub> emissions during all phases of Furnace Startup:
  - a. During the startup period, the Permittee will limit the amount of sulfur added to the batch materials to 2.6 pounds per ton of total batch material (including cullet) or less.
3. SO<sub>2</sub> limit during Malfunction of the Furnace – For any Operating Day where a Malfunction of the Furnace occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day (or Operating Days if the event covers more than one Operating Day) from the Emission Rate 30-day Rolling Average. During the Malfunction Days excluded from the Emission Rate 30-day Rolling Average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limits:

**Table 2.2.A.2.a.3**

Furnace	Emission Limits During Malfunction Days (lbs SO <sub>2</sub> /day of glass produced, 24-hour block average)	
	All Glass	
	Combusting natural gas	
Furnace # 1 (ID No. GF-1)	2,625	
Furnace # 2 (ID No. GF-2)	2,888	

4. SO<sub>2</sub> limits during Maintenance – For any Operating Day where Maintenance activities on the Furnace are performed, the Permittee may elect to exclude the Maintenance Day from the Emission Rate 30-day Rolling Average. For any Day which is excluded from the 30-day rolling average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limits:

**Table 2.2.A.2.a.4**

Furnace	Emission Limits During Maintenance Days (lbs SO <sub>2</sub> /day of glass produced, 24-hour block average)	
	Flint (clear) Glass	Colored (all other) Glass
	Combusting natural gas	Combusting natural gas
Furnace # 1 (ID No. GF-1)	$MH * 109 + NH * 29$	$MH * 109 + NH * 35$
Furnace # 2 (ID No. GF-2)	$MH * 120 + NH * 32$	$MH * 120 + NH * 39$

Where:

MH = Hours of Maintenance

NH = Normal Hours = 24 – MH

5. SO<sub>2</sub> limit during Color Transition – For any Operating Days during which a Color Transition is occurring the Permittee may elect to exclude the emissions on such Days from the Emission Rate 30-day Rolling Average. During these Days, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

**Table 2.2.A.2.a.5**

Furnace	Emission Limits During Color Transition Days (lbs SO <sub>2</sub> /day of glass produced, 24-hour block average)
	Combusting natural gas
Furnace # 1 (ID No. GF-1)	1,750
Furnace # 2 (ID No. GF-2)	1,925

- b. Terms used in Section 2.2 A.2 that are defined in the Act or in federal regulations promulgated pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in the Consent Decree (Civil Action No. 2:10-cv-00121-TSZ) [Section 2.3 of this permit].
- c. Compliance with the 30-day rolling average limits set forth in Section 2.2 A.2.a may be determined by averaging the emissions from both Furnaces subject to the same emission limit.

**Monitoring/Recordkeeping**

- d. The Permittee shall install, calibrate, certify, maintain, and operate the SO<sub>2</sub> CEMS pursuant to Section 2.3 I.15.c.
- e. The Permittee shall comply with all the requirements and determine SO<sub>2</sub> emissions pursuant to Section 2.3 I.15.d.
- f. The Permittee shall comply with the CEMS Certification Event requirements pursuant to Section 2.3 I.8.h.
- g. The Permittee shall comply with the recordkeeping requirements found in Section 2.3 I.8.j and k.

**Reporting**

- h. The Permittee shall comply with the reporting requirements found in Sections 2.3 I.35 through 40 and Section 2.3 II.

## 2.3- Global Consent Decree

### State Enforceable Only

- I. Pursuant to NCGS 143-215.108(c):
- The conditions below are excerpted from the Consent Decree in the matter of *United States v. Saint-Gobain Containers, Inc.* (Civil Action No. 2:10-cv-00121-TSZ) relating to alleged violations of the Clean Air Act. The Date of Entry of this Consent Decree is May 7, 2010.
  - Terms used in the conditions below that are defined in the Act or in federal regulations promulgated pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in the Consent Decree (Civil Action No. 2:10-cv-00121-TSZ).
  - All conditions contained in SECTION IV. INJUNCTIVE RELIEF, SECTION IX. REPORTING REQUIREMENTS, and SECTION XVII. NOTICES of the Consent Decree that apply to the furnaces at the Henderson facility are presented below with minimal changes to the original text. The numbering of the Consent Decree conditions has been included below intact.
  - Specific Consent Decree language that is not applicable to either furnace at the Henderson facility has been removed and is indicated by ellipses ( \* \* \*) while minor changes or additions to other Consent Decree language is indicated by bracketed and italicized language [...].

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### IV. INJUNCTIVE RELIEF

#### 7. NO<sub>x</sub> Emission Controls, Limits, and Compliance Schedule

a. Interim NO<sub>x</sub> Emission Limits:

[...] *[The requirements of paragraph IV.7.a. have been satisfied.]*

b. NO<sub>x</sub> Emission Controls and Compliance Schedule

- For each Furnace in Table 2, *[AGI]* shall operate the NO<sub>x</sub> emission control device specified for that Furnace in Table 2.

Table 2 – NO<sub>x</sub> Emission Controls and Compliance Schedule

Facility and Furnace Number	Controls	Deadline
Henderson #1	Oxyfuel Furnace *	December 31, 2016
Henderson #2	OEAS	December 31, 2013 **

\* *Henderson No.1 has received approval to implement SCR instead of Oxyfuel Technology via letter from the EPA dated June 25, 2015.*

\*\* *[This requirement has been satisfied.]*

\* \* \*

d. For Furnaces with Selective Catalytic Reduction (SCR) [Henderson #1]:

- [...]. For [Henderson #1], no later than the first Operating Day after the conclusion of the Control Device Startup period, *[AGI]* shall Operate the Furnace(s) passing all stack gases (except during up to the first seven (7) days of the Furnace Startup; during Malfunction of the SCR (\*\*\*); or during Maintenance of the SCR (\*\*\*) through a Selective Catalytic Reduction device in compliance with the following:
  - This SCR must be designed for a removal efficiency of at least 90 percent; and

2. When the SCR is operating, [AGI] shall continuously operate the SCR according to the vendor recommendations in order to minimize emissions to the extent practicable taking into consideration ammonia slip.
- ii. [AGI] shall comply with the following applicable NO<sub>x</sub> limits for all Furnaces to be equipped with SCR:
1. Emission Rate 30-day Rolling Average Limit – Commencing on the first Operating Day after completion of the Control Device Startup and CEMS Certification, but no later than the date specified in Table 2, [AGI] shall not emit more than 1.3 pounds of NO<sub>x</sub> per ton of glass produced on a 30-day rolling average, as measured using a NO<sub>x</sub> CEMS (where available), except during the following periods (as set forth in this Subparagraph): Abnormally Low Production Rate Days for any of the Furnaces; Control Device Startup; up to the first seven (7) days of the Furnace Startup; Malfunction of the SCR (\*\*); and Maintenance of the SCR (\*\*);
  2. NO<sub>x</sub> Limit during Abnormally Low Production Rate Days – When any of the Furnace(s) ducted through an SCR is Operating at an Abnormally Low Production Rate, [AGI] may elect to exclude emissions from all Furnaces connected to the SCR from the Emission Rate 30-day Rolling Average. During these Days, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

$$NO_{X\ SCR\ Abn} = 1.3 \frac{lb\ NO_x}{ton} \times \left[ \frac{P}{0.35} \right]$$

Where:

NO<sub>X SCR Abn</sub> = NO<sub>x</sub> emission limit for SCR during an Abnormally Low Production Rate Day on any of the Furnaces ducted through the SCR, in pounds per day

P = Sum of the Furnace-specific production thresholds as defined in Paragraph 10, in tons of glass produced per day for all of the Furnaces ducted through the SCR.

3. The first seven (7) days of the Furnace Startup – For no more than the first seven (7) Days of the Furnace Startup, the Furnace exhaust may bypass the SCR to avoid having the operating inlet temperature of the SCR fall below its operational range. During these bypass Days [AGI] shall burn no more than 15.0 million standard cubic feet of natural gas in that Furnace;
4. NO<sub>x</sub> limit during Startup of the SCR and Malfunction of the SCR (\*\*\*) – For any Operating Day during the Startup of SCR or where a Malfunction of the SCR (\*\*\*) occurs for any period of time, [AGI] may elect to exclude the emissions generated during that Operating Day (or Operating Days if the event covers more than one Operating Day) from the Emission Rate 30-day Rolling Average. During the Malfunction Days excluded from the Emission Rate 30-day Rolling Average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

$$NO_{X\ SCR\ Malf, SCR\ Startup} = 5 \times NO_{X\ SCR\ Abn}$$

Where:

NO<sub>X SCR Malf, SCR Startup</sub> = NO<sub>x</sub> emission limit for a Furnace using SCR during a Malfunction Day and during SCR Startup, in pounds per day.



$NO_x SCR_{Abn}$  = As defined in 7.d.ii.2,  $NO_x$  emission limit for SCR during an Abnormally Low Production Rate Day, in pounds per day.

5.  $NO_x$  limit during Maintenance of the SCR (\*\*\*) – For any Operating Day where Maintenance activities on the SCR or Scrubber System/ESP are performed, [AGI] may elect to exclude the Maintenance Day from the Emission Rate 30-day Rolling Average. For any Day which is excluded from the 30-day rolling average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

$$NO_x SCR_{Maint} = \frac{MH \times [5 \times NO_x SCR_{Abn}]}{24} + \frac{NH \times [NO_x SCR_{Abn}]}{24}$$

Where:

$NO_x SCR_{Maint}$  =  $NO_x$  emission limit for a Furnace using SCR during a Maintenance Day, in pounds per day

$NO_x SCR_{Abn}$  = As defined in 7.d.ii.2,  $NO_x$  emission limit for SCR during an Abnormally Low Production Rate Day, in pounds per day.

MH = Hours of Maintenance

NH = Normal Hours = 24 – MH

e. For Furnaces with OEAS as identified in Table 2 [Henderson #2]

- i. [...] [A]t the end of the Furnace Startup period following the next Major Rebuild [permitted in permit no. T20], but no later than the first Operating Day after the dates specified in Table 2, [AGI] shall only operate the designated Furnace using OEAS technology.

\* \* \*

- iii. [AGI] shall comply with the following applicable  $NO_x$  limits for OEAS-equipped Furnaces:

1. Emission Rate 30-day Rolling Average Limit – Commencing on the first Operating Day after completion of the Furnace Startup and CEMS Certification [...], but no later than the date specified in Table 2, [AGI] [...] shall achieve an Emission Rate 30-day Rolling Average equal to [4.6 lbs/ton] [...], as measured using a  $NO_x$  CEMS [...], except during the following periods (as set forth in this Subparagraph): Abnormally Low Production Rate Days; Furnace Startup; Malfunction of the Furnace; and Maintenance of the Furnace.
2.  $NO_x$  Limit during Abnormally Low Production Rate Days – For any Abnormally Low Production Rate Day [AGI] may elect to exclude the emissions generated during that Day from the Emission Rate 30-day Rolling Average. During these Days, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

$$NO_{x OEAS Abn} = [4.6] \frac{lbNO_x}{ton} \times \left[ \frac{P}{0.35} \right]$$

Where:

$NO_{x\ OEAS\ Abn}$  =  $NO_x$  emission limit for an OEAS-Equipped Furnace during an Abnormally Low Production Rate Day, in pounds per day.

$P$  = Furnace-specific production threshold as defined in Paragraph 10 [as specified in this permit see below], in tons of glass produced per day.

3. Limits during Furnace Startup –

- a. Initial Heating Phase Operational Limit: [AGI] shall burn no more than 5.0 million standard cubic feet of natural gas in that Furnace during the Initial Heating Phase of the Furnace Startup.
- b. Refractory Soak and Seal Phase Operational Limits: [AGI] shall comply with the following operational limits to limit  $NO_x$  emissions during the Refractory Soak and Seal Phase of the Furnace Startup:
  - i. Burn no more than sixty million standard cubic feet natural gas in that Furnace;
  - ii. Limit excess oxygen below 5 percent at the Furnace exhaust flue, as determined by handheld monitor, once per shift;
  - iii. Limit Hot Spot Temperature to 2900 degrees F; and
  - iv. Use thermal blankets or similar techniques to minimize air infiltration until expansion joints are sufficiently closed.
- c. Furnace Stabilization Phase Operational Limits: [AGI] shall comply with the following operational limits to limit  $NO_x$  emissions during the Furnace Stabilization Phase of the Furnace Startup:
  - i. Burn no more than ninety million standard cubic feet natural gas in that Furnace;
  - ii. Limit excess oxygen below 5 percent at the Furnace exhaust flue as determined by handheld monitor, once per shift; and
  - iii. Limit Hot Spot Temperature to 2900 degrees F.

4.  $NO_x$  limit during Malfunction – For any Operating Day where a Malfunction of the Furnace occurs for any period of time, [AGI] may elect to exclude the emissions generated during those Operating Day (Operating Days if the event covers more than one Operating Day) from the Emission Rate 30-day Rolling Average. During the Malfunction Days excluded from the Emission Rate 30-day Rolling Average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

$$NO_{x\ OEAS\ Malf} = 3 \times NO_{x\ OEAS\ Abn}$$

Where:

$NO_{x\ OEAS\ Malf}$  =  $NO_x$  emission limit for an OEAS-Equipped Furnace during a Malfunction Day, in pounds per day.

$NO_{x\ Oxy\ Abn}$  = As defined in Paragraph 7.e.iii.2,  $NO_x$  emission limit for an OEAS-Equipped Furnace during an Abnormally Low Production Rate Day, in pounds per day.

5.  $NO_x$  limit during Maintenance – For any Operating Day where Maintenance activities on the Furnace are performed, [AGI] may elect to exclude the Maintenance Day from the Emission Rate 30-day Rolling Average. For any Maintenance Day which is excluded from the 30-day Rolling Average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per day limit:

$$NO_{x\ OEAS\ Maint} = \frac{MH \times [3 \times NO_{x\ OEAS\ Abn}]}{24} + \frac{NH \times [NO_{x\ OEAS\ Abn}]}{24}$$

Where:

$NO_{x\ OEAS\ Maint}$  =  $NO_x$  emission limit for an OEAS-Equipped Furnace during a Maintenance Day, in pounds per day.

$NO_{x\ OEAS\ Abn}$  = As defined in Paragraph 7.e.iii.2,  $NO_x$  emission limit for an OEAS-Equipped Furnace during an Abnormally Low Production Rate Day, in pounds per day.

MH = Hours of Maintenance

NH = Normal Hours = 24 – MH

- f. Monitoring: A CEMS [...] shall be used to demonstrate compliance with the  $NO_x$  limits in Paragraph 7.c. through 7.e. [...] If a CEMS Certification Event occurs, then the requirement to demonstrate compliance continuously with the limit for that Furnace will be suspended until Certification is completed (provided the seven-day test required for Certification is commenced the first Operating Day following the conclusion of the CEMS Certification Event).
- g. Existing State/Local Limits: The limits in Paragraph 7 do not replace any current State/local limits and do not relieve [AGI] of its obligation to comply with those limits.
- h. Recordkeeping: For any Operating Day that [AGI] is excluding emissions from the relevant Emission Rate 30-day Rolling Average, it shall record the date, the exception (Abnormally Low Production Rate Day, Furnace Startup, Control Device Startup, Malfunction, or Maintenance) under which it is excluded, a calculation of the applicable limit (pounds per day) according to the equations above, and the recorded emissions according to the CEMS (pounds per day). For any Operating Day excluded for Maintenance, [AGI] shall record the total number of hours during which Maintenance occurred.
- i. Recordkeeping and Reporting during Furnace Startup: In addition to the record keeping in Subparagraph h. above, during the applicable Furnace Startup period phases [AGI] must also keep the following records:
  - i. For the Initial Heating Phase –
    1. Total natural gas usage in that Furnace (in million standard cubic feet)
  - ii. For the Refractory Soak and Seal Phase –
    1. Total natural gas usage in that Furnace (in million standard cubic feet);
    2. Excess oxygen percentage at the Furnace exhaust flue (as determined by handheld monitor once per shift);
    3. Hot Spot Temperature (measured once per shift); and
    4. A certified statement asserting whether thermal blankets or similar techniques were used during this period.
  - iii. For the Furnace Stabilization Phase –
    1. Total natural gas usage in that Furnace (in million standard cubic feet);
    2. Excess oxygen percentage at the Furnace exhaust flue (as determined by handheld monitor once per shift); and
    3. Average Hot Spot Temperature (measured once per shift).
- j. Where a Facility has more than one Furnace subject to the same emission limit [...] compliance with the 30-day rolling limits set forth herein may be determined by averaging the emissions from all Furnaces subject to the same emission limit at a given facility.

8. SO<sub>2</sub> Emission Controls, Limits, and Compliance Schedule

- a. Interim SO<sub>2</sub> Emission Limit: *[The requirements of Paragraph 8.a. have been satisfied and superseded by Condition 2.2.A.2]*

i. [...]

\* \* \*

iii. Emission Rate 30-day Rolling Average Limit – [...]

iv. [If both Henderson Furnaces are] subject to an interim limit, compliance may be determined by averaging the emissions from all such Furnaces [...]

\* \* \*

- b. SO<sub>2</sub> Emission Controls and Compliance Schedule *[The requirements of Paragraph 8.b. have been satisfied]*

i. *[AGI]* shall operate one of the SO<sub>2</sub> emission control devices specified for that Furnace in Table 3.

Table 3 – SO<sub>2</sub> Emission Controls and Compliance Schedule

Facility	Controls	Deadline
Henderson #1	Process Controls – See Section 8.g.	<i>[June 30, 2015]</i>
Henderson #2	Process Controls – See Section 8.g.	<i>[June 30, 2015]</i>

\* \* \*

- g. For Furnaces listed in Table 4

- i. Process controls may include technologies and methods that are currently undertaken or will be undertaken to reduce SO<sub>2</sub> emissions.
- ii. Process controls shall be implemented at the following Furnaces and will be referred to as “Furnaces listed in Table 4.”

Table 4 – Process-Controlled Furnaces

Henderson Furnace #1
Henderson Furnace #2

- iii. By no later than June 30, 2015, *[AGI]* shall submit a complete application to the State/local permitting authority for two federally-enforceable SO<sub>2</sub> emission limits measured on a 30-day Rolling Average Emission Rate for each of the Furnaces listed in Table 4. [...] *[The requirements of Paragraph 8.g.iii. have been satisfied.]*
- iv. Following the submission of a complete permit application, *[AGI]* shall cooperate with the applicable State/local permitting authority by promptly submitting all information requested by the State/local permitting authority. *[This condition has been satisfied.]*

\* \* \*

vi. By no later than June 30, 2015, *[AGI]* shall apply for permanent SO<sub>2</sub> emission limits in compliance with 8.g.iii-xii. *[for Henderson Furnaces #1 and #2]* through Permits issued by the State/local agency. *[The requirements of Paragraph 8.g.vi. have been satisfied.]*

vii. *[AGI]* shall continuously comply with each proposed SO<sub>2</sub> emission limit starting on the date of the Permit application and throughout the duration of the Consent Decree except during periods of Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, Maintenance of the Furnace, and Color Transition.

viii. An SO<sub>2</sub> CEMS shall be used to demonstrate compliance with the SO<sub>2</sub> limits for Furnaces listed in Table 4.

\* \* \*

- h. Monitoring: A CEMS [...] shall be used to demonstrate compliance with the SO<sub>2</sub> limits in Paragraph [8.g] using data generated by the SO<sub>2</sub> CEMS. [...] If a CEMS Certification Event occurs, then the requirement to demonstrate compliance continuously with the limit for that Furnace will be suspended until Certification is completed (provided the seven-day test required for Certification is commenced the first Operating Day following the conclusion of the CEMS Certification Event).
- i. Existing State/Local Limits: The limits in Paragraph 8 do not replace any current State/local limits and do not relieve [AGI] of its obligation to comply with those limits.
- j. Recordkeeping: For any Operating Day that [AGI] is excluding emissions from the relevant Emission Rate 30-day Rolling Average, it shall record the date, the exception (Abnormally Low Production Rate Day, Furnace Startup, Furnace Malfunction, Furnace Maintenance, or Color Transition) under which it is excluded, a calculation of the applicable limit (pounds per day) according to the equations above, and the recorded emissions according to the CEMS, if a certified CEMS is available ( in pounds per day).
- k. Recordkeeping and Reporting during Furnace Startup: In addition to the record keeping in Subparagraph j. above, during all Furnace Startup phases [AGI] must also keep the following records:
  - i. During the startup period, [AGI] will record the amount of sulfur added to the batch materials in pounds per ton of total batch material.
- l. Where a Facility has more than one Furnace subject to the same emission limit, compliance with the 30-day rolling average limits set forth herein may be determined by averaging the emissions from all Furnaces subject to the same emission limit at a given Facility.
- m. [...] If additional Furnaces are allowed by a Permit to burn fuel oil, the required SO<sub>2</sub> limit under the Consent Decree shall be increased by 2.0 pounds per ton for periods when burning fuel oil. No Furnace may combust fuel oil which has a sulfur content in excess of 0.5 percent, by weight.
- n. Compliance with a Sulfuric Acid Mist emission limit of 1.0 pounds per ton of glass produced shall be demonstrated by a stack test performed using Conditional Test Method 13A or B [...] on or before December 31, 2011. *[This demonstration has been satisfied]*. Stack testing shall be required to be performed after this initial test only once during the life of each Title V permit renewal.

9. PM Emission Controls, Limits, and Compliance Schedule

- a. Interim PM Emission Limit: *[For Henderson #1 and #2, condition 9.a has been superseded by condition 9.b]*
  - i. [...] [AGI] shall comply with an interim PM emission limit of 1.0 pound of filterable PM per ton of glass produced on *[the Henderson]* glass Furnaces [...].
  - ii. [...] [C]ompliance with this interim PM emission limit shall be demonstrated by conducting an EPA Method 5 (40 C.F.R. Part 60 Appendix A) source test. Testing shall be conducted initially no later than 12 months after the Date of Entry and once each Calendar Year thereafter.

\* \* \*

- iv. The interim PM emission limit shall remain in effect until the Furnace is required to comply with a PM emission limit specified in *[Paragraph 9.f.]* below. [...]
- b. PM Emission Controls and Compliance Schedule
  - i. For each Furnace in Table 5, [AGI] shall operate one of the PM emission control devices or methods specified for that Furnace in Table 5.

**Table 5 – Controls for Particulate Matter and Compliance Schedule**

Facility and Furnace #	Controls	Deadline
------------------------	----------	----------

Henderson #1	Process Controls – See Section 9.f.	December 31, 2014 <i>[This deadline has been met.]</i>
Henderson #2	Process Controls – See Section 9.f.	December 31, 2009 <i>[This deadline has been met.]</i>

\* \* \*

f. PM Emission Limits for Furnaces listed in Table 4

- i. For each Furnace listed in Table 4, *[AGI]* shall comply with the PM emission limit of 1.0 pound of total PM per ton of glass produced for each Furnace by the dates specified in Table 5.
- ii. Compliance with the PM limits in Paragraph 9.f.i. shall be demonstrated by annual stack tests. Total PM shall be determined using Method 5 (40 C.F.R. Part 60 Appendix A) and EPA Method 202 (40 C.F.R. Part 51 Appendix M). Compliance with this limit shall be measured by a stack test which *[AGI]* shall conduct no later than twelve (12) months after the date control is required in Table 5 and once per Calendar Year thereafter.

\* \* \*

- i. Existing State/Local Limits – The limits in Paragraph 9 do not replace any current State/local limits and do not relieve *[AGI]* of its obligation to comply with those limits.

\* \* \*

- k. Where a Facility has more than one Furnace subject to the same emission limit, but routed to different stacks, compliance with the pounds per ton stack test limits set forth herein may be determined by averaging the emissions from Furnaces subject to the same emission limit at a given Facility. The average of the stack test results would be calculated on a weighted average by taking the source test from each unit and multiplying by the actual production of that unit in that year and dividing by the total Facility-wide production for that year. Then the resulting weighted numbers would be calculated for each additional Furnace and added together to calculate the combined pounds of emissions per ton of glass for the Facility.

\* \* \*

l. Compliance with the New Source Performance Standards (NSPS) *[Condition 9.1 has been satisfied.]*

- i. Some of *[AGI]*'s existing Furnaces are already subject to 40 C.F.R. Part 60, Subpart CC. On the dates specified in this Paragraph 9.1., *[AGI]*'s remaining Furnaces shall be "affected facilities" pursuant to 40 C.F.R. Part 60, Subpart CC.
- ii. [...] Henderson Furnace #2,[...], will be [an]"affected facilit[y]" under 40 C.F.R. Part 60, Subparts A and CC, 180 Days after installation and certification of the Continuous Opacity Monitoring System (COMS).

\* \* \*

- vi. *[AGI]* must certify for any Furnace that became an "affected facility" in that year, whether the Furnace is in compliance with 40 C.F.R. Part 60, Subparts A and CC in the annual report for the year.

10. Abnormally Low Production Rate Days - The following values shall be used to determine Abnormally Low Production Rate Days for each Furnace.

Table 6 – Abnormally Low Production Rate Day Thresholds

Facility and Furnace	Abnormally Low Production Rate Day Threshold * (tons/day)
Henderson, NC – Furnace #1	123 <i>[This value has been revised per application no. 9100069.16A]</i>
Henderson, NC – Furnace #2	[135] <i>[This value has been revised per application no. 9100069.11B]</i>

\* Unless capacity subsequently increases as authorized by a revised permit limit. If production is increased by a Permit, the Abnormally Low Production Rate Day Threshold would be 35 percent of the

new permitted production (or design production, where there is no permitted production) as determined on a daily basis (for the purpose of defining the Abnormally Low Production Rate Day Threshold).

\* \* \*

12. Good Operation - At all times, including periods of Abnormally Low Production Rate Days, Furnace Startup, Control Device Startup, Malfunction, Maintenance, and Color Transition, [AGI] shall, to the extent practicable, maintain and operate all Furnaces and all control devices in a manner consistent with good air pollution control practice for minimizing emissions.
13. Maintenance
  - a. Scheduled or preventative Furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) Operating hours annually and shall be conducted only when any downstream control devices required by this Consent Decree [...], if applicable, are operating.
  - b. Control system scheduled or preventative Maintenance – Scheduled or preventative Maintenance of the emission control system shall occur when the Furnace(s) connected to the control system are not Operating. However, for any Calendar Year which is a Continuous Operating Year, scheduled or preventative maintenance may be conducted while the Furnace(s) are Operating. During these Continuous Operating Years, Maintenance lasting greater than twenty-four consecutive hours, shall occur only during Abnormally Low Production Rate Days. Control system Maintenance must be done in compliance with the following:
    - i. Bypass for the purpose of preventative Maintenance of any SCR shall not exceed 144 hours annually in any Calendar Year.

\* \* \*

14. Source Testing – Each source test shall be conducted in accordance with the requirements of the specified test method and shall be performed under representative operating conditions and shall not be conducted during periods of Abnormally Low Production Rate Days, Furnace Startup, Control Device Startup, Malfunction of the Furnace or relevant control system, Maintenance of the Furnace or relevant control system, or Color Transition.
15. Installation, Calibration, Certification, Maintenance, and Operation of CEMS and COMS
  - a. In lieu of any parametric monitoring, by no later than the respective dates listed in Table 8 for each Furnace, [AGI] shall install, calibrate, certify, maintain, and operate CEMS and/or COMS as specified in Subsection b. through e. of this Paragraph (where a CEMS or COMS is being installed at a Facility where more than one Furnace is routed through a single ESP/Scrubber or CCSS, only one CEMS/COMS unit is required). [*Condition 15 has been satisfied.*] The CEMS or COMS certification cannot occur during periods of Abnormally Low Production Rate Days, Furnace Startup, Control Device Startup, Malfunction, Maintenance, or Color Transition. [AGI] shall commence a new CEMS Certification on a particular Furnace on the first Operating Day after each CEMS Certification Event concludes on that Furnace.

Table 8 – Continuous Monitoring Systems

Facility	NO <sub>x</sub> CEMS Deadline	SO <sub>2</sub> CEMS Deadline	COMs Deadline (subject to 15.b.)
Henderson #1	December 31, 2009	December 31, 2009	[May 7, 2010]
Henderson #2	December 31, 2009	December 31, 2009	December 31, 2009

- b. \* \* \* If [AGI] installs an SCR on any of the above facilities, then it will not have to install COMS on that Furnace.
- c. [AGI] shall install, calibrate, certify, maintain, and operate NO<sub>x</sub> and SO<sub>2</sub> CEMS as required by Paragraph 15.a. as follows:
  - i. Subject to Paragraph 15.c.ii., the NO<sub>x</sub> and SO<sub>2</sub> CEMS shall monitor continuously and record the hourly NO<sub>x</sub> and SO<sub>2</sub> emission concentration (parts per million) during each Operating Day from each Furnace (or Furnaces where more than one Furnace subject to the same emission limit is routed through a common exhaust stack). The CEMS shall calculate and record in units of parts per million of NO<sub>x</sub> and SO<sub>2</sub> emitted.

- ii. The CEMS shall be installed, calibrated, certified, maintained, and operated in accordance with 40 C.F.R. § 60.13, 40 C.F.R. Part 60 Appendix B (Performance Specification 2) and 40 C.F.R. Part 60 Appendix F (Quality Assurance Procedures).
- d. Where the Consent Decree requires the use of CEMS to determine an emission rate (pound per ton or ton per year), then *[AGI]* is required to either:
  - i. Follow requirements set forth above in 15.c. for the CEMS and then use an EPA approved method for calculating flow. In conjunction with the EPA approved flow method calculation, the data acquisition and handling system for the CEMS shall convert the ppm values into pound per hour values where the limit is expressed in pounds of pollutant per ton of glass produced. At the end of each Operating Day, the data acquisition and handling system shall divide the total daily emissions in pounds per day for valid CEMS hourly data by the total tons of glass produced during the Operating Day (reduced proportionally based on the valid CEMS data hours) to describe the pound per ton emission rate for the Operating Day. This number shall be recorded in units of pounds of pollutant per ton of glass produced; or
  - ii. Install, calibrate, certify, maintain, and operate NO<sub>x</sub> and SO<sub>2</sub> Continuous Emission Rate Monitoring System (CERMS) as follows:
    - 1. The CERMS shall be installed, calibrated, certified, maintained, and operated in accordance with 40 C.F.R. § 60.13, 40 C.F.R. Part 60 Appendix B (Performance Specification 6), and 40 C.F.R. Part 60 Appendix F (Quality Assurance Procedures);
    - 2. *[AGI]* must comply with all monitoring, record keeping and reporting requirements in 40 C.F.R. § 60.13 and 40 C.F.R. Part 60 Appendix B (Performance Specification 6); and
    - 3. In conjunction with the flow rate monitoring device, the data acquisition and handling system for the CEMS shall convert the ppm values into pound per hour values where the limit is expressed in pounds of pollutant per ton of glass produced. At the end of each Operating Day, the data acquisition and handling system shall divide the total daily emissions in pounds per day for valid CEMS hourly data by the total tons of glass produced during the Operating Day (reduced proportionally based on the valid CEMS data hours) to describe the pound per ton emission rate for the Operating Day. This number shall be recorded in units of pounds of pollutant per ton of glass produced for the applicable Day.
- e. *[AGI]* shall install, calibrate, certify, maintain, and operate a COMS as required by Paragraph 15.a. as follows:
  - i. *[AGI]* shall install, calibrate, certify, maintain, and operate continuously a COMS during each Operating Day as required by Paragraph 15.a. in accordance with Performance Specification 1 of 40 C.F.R. Part 60 Appendix B; and
  - ii. *[AGI]* must comply with all monitoring, record keeping and reporting requirements in 40 C.F.R. § 60.13 and 40 C.F.R. Part 60 Appendix B (Performance Specification 1).

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## IX. REPORTING REQUIREMENTS

35. *[AGI]* shall submit the following reports:
- a. Until the termination of this Consent Decree, *[AGI]* shall submit to EPA and to the Affected States an annual progress report no later than March 1 of each year. Each annual progress report shall contain the following information with respect to the Calendar Year preceding its submission:
    - i. Work performed and progress made toward implementing the requirements of Section IV (*of the Consent Decree*);
    - ii. Except for Calendar Year 2009, actual annual emissions of SO<sub>2</sub>, NO<sub>x</sub> and PM from each Furnace measured using CEMS, or if no CEMS, the most recent source test(s);
    - iii. Any significant problems encountered or anticipated in complying with the requirements of Section IV (*of the Consent Decree*), together with implemented or proposed solutions;



- iv. Unless previously provided, final testing reports from tests conducted pursuant to this Consent Decree that reflect an accurate summary of emissions from a Furnace as compared to the Consent Decree requirement;
  - v. Status of permit applications and a summary of all permitting activity pertaining to compliance with this Consent Decree; and
  - vi. With respect to the first annual report, the SEP reports required by Paragraph 24 (*of the Consent Decree*).
- b. A copy of any reports to Affected States pertaining to compliance with this Consent Decree shall be provided to EPA either at the time of submission to the Affected State or in the annual report.
- c. If [AGI] violates, or has reason to believe that it may have violated, any requirement of this Consent Decree, [AGI] shall notify the United States and the Affected State of such violation and its duration or anticipated likely duration, in writing and by telephone, email or facsimile, within ten (10) business days of the time [AGI] first becomes aware of the violation or potential violation. The notice should explain the violation's likely cause and the remedial steps taken, or to be taken, to prevent future violations. If the cause of a violation cannot be fully explained at the time notice is given, [AGI] shall so state in the notice. After notice is given, [AGI] shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within thirty (30) Days of the Day [AGI] becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves [AGI] of its obligation to provide the notice required by Section XII of this Consent Decree (Force Majeure).
- d. Whenever any violation of this Consent Decree or any other event affecting [AGI]'s performance under this Decree, or the performance of any of its glass manufacturing Facilities, may pose an immediate threat to the public health or welfare or the environment, [AGI] shall notify EPA and the Affected State, orally or by electronic or facsimile transmission as soon as possible, but no later than twenty-four (24) hours after [AGI] first knew of, or should have known of, the violation or event.
36. As part of its annual reports, [AGI] shall provide EPA with a copy of any of the following which were produced in the preceding Calendar Year: each application for a Permit, or Permit amendment, to address or comply with any provision of this Consent Decree, as well as a copy of any Permit proposed as a result of such application.
37. All reports shall be submitted to the persons and in the manner designated in Section XVII (Notices).
38. Each report submitted by [AGI] under this Section shall be signed by a plant manager, a corporate official responsible for environmental management and compliance, or a corporate official responsible for plant operations of [AGI], and shall include the following certification:
- I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gather and present the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly and willfully submitting a materially false statement.
39. The reporting requirements of this Consent Decree do not relieve [AGI] of any reporting obligations required by the Act or implementing regulations, or by any other federal, State, or local law, regulation, permit, or other requirement. The reporting requirements of this Section are in addition to any other reports, plans or submissions required by other Sections of this Consent Decree.
40. Any information provided pursuant to this Consent Decree may be used by the United States and any Affected State in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law and may be made available to the public upon request, if not otherwise protected as confidential business information, pursuant to 40 C.F.R. Part 2.

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## XVII. NOTICES

90. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, [AGI]'s submissions shall be deemed submitted on the date they are sent either by overnight delivery service or by certified or registered mail, return receipt requested. When [AGI] is required to submit notices or communicate in writing to the United States and the Affected State relating to one of the [AGI]'s Facilities, [AGI] shall also submit a copy of that notice or other writing to the United States and the Affected State for the Facility located in that State. Except as otherwise provided herein, when written notification or communication is required by this Consent Decree, it shall be addressed as follows, unless a Party notifies all other Parties in writing to provide notification to a different addressee:

As to the United States: - [See Consent Decree]

As to the U.S. Environmental Protection Agency: - [See Consent Decree]

With copies to the EPA Regional office where the relevant Facility is located:

EPA Region 4: - [See Consent Decree]

As to Plaintiff-Intervenor, the State of North Carolina:

All notices and reports required from [AGI] should be mailed, first class postage prepaid to:

Patrick Butler, Regional Air Quality Supervisor  
Raleigh Regional Office  
Department of Environment and Natural Resources  
3800 Barrett Drive, Suite 101  
Raleigh, NC 27609

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**Additional Reporting Requirements**

- II.** The Permittee shall, on a quarterly basis, consistent with 40 CFR 60.7(c), submit an excess emissions and monitoring system performance summary report. The report shall contain the information required per 40 CFR 60.7(c) and (d).

The quarterly reports, acceptable to the Regional Air Quality Supervisor, shall be postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September.

## SECTION 3 - GENERAL CONDITIONS (version 4.0 12/17/15)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance  
North Carolina Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements  
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
  - a. changes in the information submitted in the application;
  - b. changes that modify equipment or processes; or
  - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
  - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
  - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
    - i. the changes are not a modification under Title I of the Federal Clean Air Act;
    - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
    - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
    - iv. the Permittee shall attach the notice to the relevant permit.
  - c. The written notification shall include:
    - i. a description of the change;
    - ii. the date on which the change will occur;
    - iii. any change in emissions; and
    - iv. any permit term or condition that is no longer applicable as a result of the change.
  - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]  
The Permittee may make changes in the operation or emissions without revising the permit if:
  - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
  - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]  
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

**I.A. Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
  - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
    - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
      - name and location of the facility;
      - nature and cause of the malfunction or breakdown;
      - time when the malfunction or breakdown is first observed;
      - expected duration; and
      - estimated rate of emissions;
    - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
    - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
  - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

**I.B. Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

**J. Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent

caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
  - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
  - b. the permitted facility was at the time being properly operated;
  - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
  - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. Duty to Provide Information (submittal of information) [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. Duty to Supplement [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. Retention of Records [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. Compliance Certification [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions

limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. Certification by Responsible Official [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. Permit Shield for Applicable Requirements [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
  - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
  - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
  - c. the applicable requirements under Title IV; or
  - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. Termination, Modification, and Revocation of the Permit [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. Insignificant Activities [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. Property Rights [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. Inspection and Entry [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
  - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
  - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
  - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and



- d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. Annual Fee Payment [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. Annual Emission Inventory Requirements [15A NCAC 02Q .0207]

The Permittee shall report by June 30 of each year the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. Confidential Information [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. Construction and Operation Permits [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. Standard Application Form and Required Information [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. Financial Responsibility and Compliance History [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. Refrigerant Requirements (Stratospheric Ozone and Climate Protection) [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

- EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY  
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.
- FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]  
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.
- GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]  
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.
- HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]  
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).
- II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]  
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.
- JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]  
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:
1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
  2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
  3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
  4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
      - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
      - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
      - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.

- b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

**KK. Reopening for Cause [15A NCAC 02Q .0517]**

1. A permit shall be reopened and revised under the following circumstances:
  - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
  - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
  - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

**LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]**

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

**MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY**

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

**NN. Specific Permit Modifications [15A NCAC 02Q.0501 and .0523]**

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
  - a. a description of the change at the facility;
  - b. the date on which the change will occur;
  - c. any change in emissions; and

- d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

## ATTACHMENT

### List of Acronyms

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CAA</b>	Clean Air Act
<b>CAIR</b>	Clean Air Interstate Rule
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>DAQ</b>	Division of Air Quality
<b>DEQ</b>	Department of Environmental Quality
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NAA</b>	Non-Attainment Area
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>RACT</b>	Reasonably Available Control Technology
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound